

Work Order ID 87362

87362

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Item ID: D4271-025 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: End Fitting Assembly Fwd Beam
 Start Date: 7/10/12 Start Qty: 4.00 *4* Cust Item ID:
 Required Date: 7/27/12 Req'd Qty: 4.00 *4* Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 12/07/19 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4271	D								
100		0.00							
100									
Small Fab	Memo	0.00							
Small Fab	Assemble as per dwg D4271 REAM HOLE AS PER DWG CUT RIVET AT 1.130" C' SINK AT .220" X100 DEG FOR HOLE OPPOSITE TO HEAD								
110	QC5- Inspect part completeness to step on W/O	0.00							
110									
QC	Memo	0.00							
Quality Control									
120	Identify as per dwg & Stock Location: <u>480A</u>	0.00							
120									
Packaging	Memo	0.00							
Packaging									

4/x 12/10/25

4

4 12/10/29

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width: 25%;">Skid-tube <input type="checkbox"/></td> <td style="width: 25%;">Crosstube <input type="checkbox"/></td> <td style="width: 25%;">Water Jet <input type="checkbox"/></td> <td style="width: 25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>						Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>																								
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>																								
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Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																									
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Process <input type="checkbox"/>																											
Supplier <input type="checkbox"/>																											
Training <input type="checkbox"/>																											
Unapproved <input type="checkbox"/>																											

FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

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Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.00							
Quality Control									

12/10/31 20
R 12-10-30

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

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Picklist Print

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Work Order ID: 87362

Parent Item: D4271-025

Parent Item Name: End Fitting Assembly Fwd Beam

Start Date: 7/10/12

Required Date: 7/27/12

Start Qty: 4.00

Required Qty: 4.00

AN4C13A Purchased No

100 Each 170.0000 2

8

BOLT

Location	Loc Qty	Loc Code
ST356	100	
122416	100	
ST357	70	
120187	1	
121827	3	
122141	66	

MS20427M4-20

Purchased No

100 Each 162.0000 1

4

RIVET

Location	Loc Qty	Loc Code
GA	162	
118429	162	

MS20615-4M18

Purchased No

100 Each 203.0000 10

40

Rivet

Location	Loc Qty	Loc Code
322	3	
121349	3	
ST315	170	
122141	170	
ST322	30	
121444	30	

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Shop Packet Print

Page 2

NCR: Yes / No

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Picklist Print

July-18-12 1:08:43 PM

Page 3

Work Order ID: 87362

Parent Item: D4271-025

Parent Item Name: End Fitting Assembly Fwd Beam

Start Date: 7/10/12

Required Date: 7/27/12

Start Qty: 4.00

Required Qty: 4.00

MS21043-4 Purchased No

100 Each 1,565.0000 2

8

EB 12/10/25

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	40	
104603	40	
ST301	525	
119546	4	
121162	94	
121652	427	
ST318	1000	
122141	1000	

8

NAS1149C0432R Purchased No

100 Each 3,132.0000 4

16

EB 12/10/25

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST297	1070	
117291	70	
119124	1000	
ST298	2062	
121255	2062	

16

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Shop Packet Print

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NCR: Yes / No

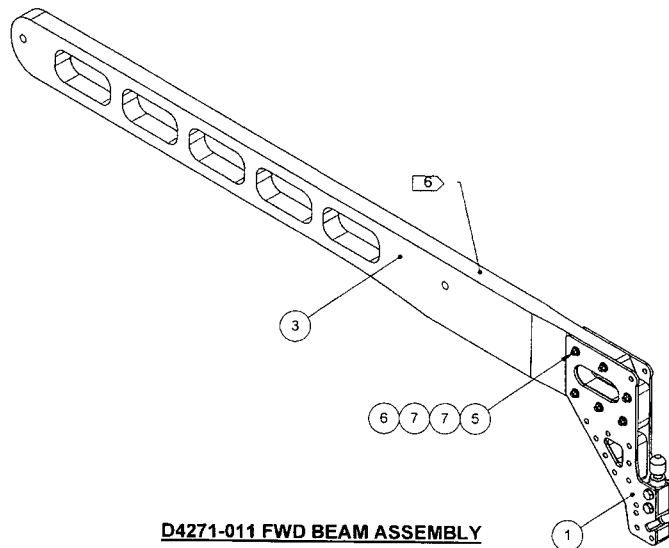
WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

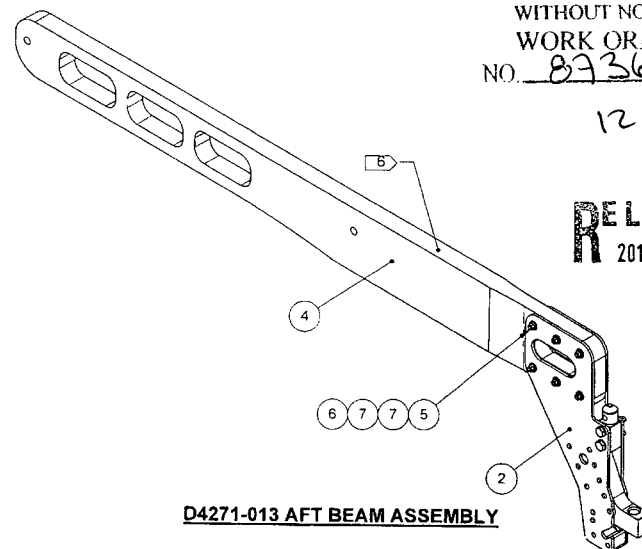
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ITEM	QTY -011	QTY -013	P/N	DESCRIPTION
	X		D4271-011	FWD BEAM ASSEMBLY
		X	D4271-013	AFT BEAM ASSEMBLY
	-	-	D4271-021	DELETED AT REVISION D
	-	-	D4271-023	DELETED AT REVISION D
1	1	-	D4271-025	FWD BEAM END FITTING ASSEMBLY
2	-	1	D4271-027	AFT BEAM END FITTING ASSEMBLY
3	1	-	D4275-1	FWD BEAM
4	-	1	D4276-1	AFT BEAM
5	6	6	AN3C12A	BOLT
6	6	6	MS21043-3	NUT
7	12	12	NAS1149C0332R	WASHER



D4271-011 FWD BEAM ASSEMBLY



D4271-013 AFT BEAM ASSEMBLY

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 87362 HW
12/07/19

RELEASED
R 2011-07-28

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4271-0XX" AND B/N "BXXXXX"
PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT -011: 11.02 lbs
-013: 12.97 lbs

D	DELETED -021 & -023 REPLACED BY -025 & -027 FOR Q.R STEP INSTALLATION.	AJS	11.07.14
C	ADDED -021 & -023 FOR EASE OF CONFIGURATION MANAGEMENT. REFORMAT SEE PREV REV FOR DETAILS.	AJS	11.07.12
B	ITEM 10 CHANGED FROM AN3C12A TO AN4C13A	SC	10.12.01
A	NEW ISSUE	SC	10.11.25
REV	DESCRIPTION	BY	DATE
DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	91	DRAWING NO	REV. D
MFG. APPR.	E	D4271	SHEET 1 OF 3
APPROVED	140	TITLE	SCALE
DE APPR.	140	SUPPORT BEAM ASSEMBLIES	NTS
DATE	11.07.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. NO REPRODUCTION OR DISSEMINATION OF THIS DOCUMENT IS PERMITTED WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

NCR: Yes / No

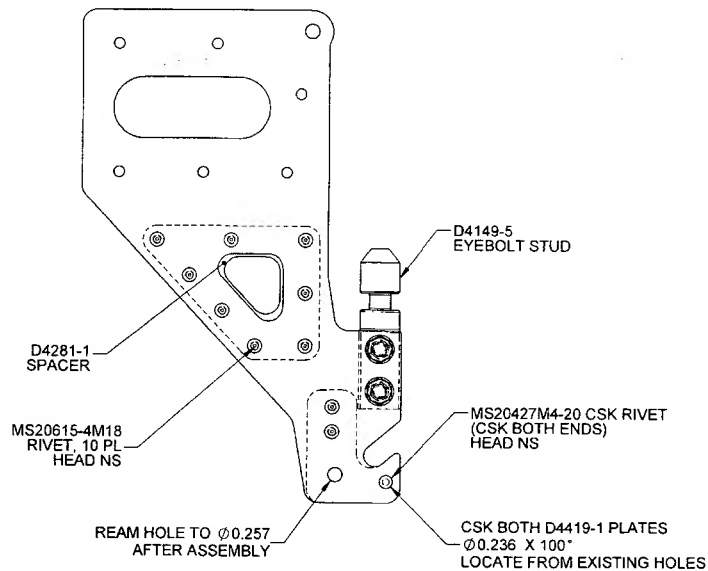
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Other <input type="checkbox"/>																											
Process <input type="checkbox"/>																											
Supplier <input type="checkbox"/>																											
Training <input type="checkbox"/>																											
Unapproved <input type="checkbox"/>																											
FAULT CATEGORY																											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other																

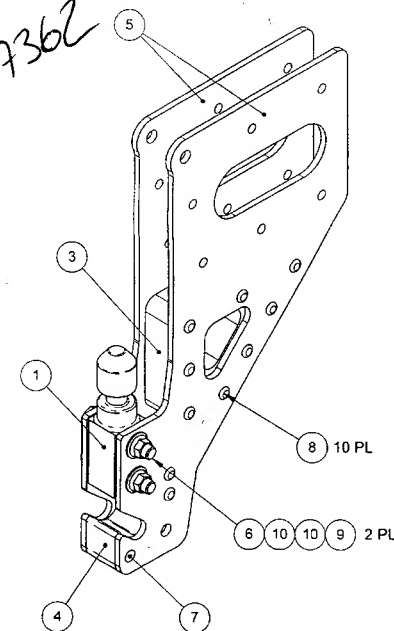
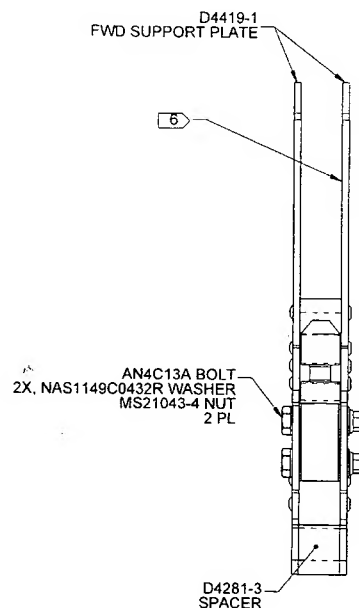
ITEM	QTY	P/N	DESCRIPTION
	X	D4271-025	FWD BEAM END FITTING ASSEMBLY
1	1	D4149-5	EYEBOLT STUD
3	1	D4281-1	SPACER
4	1	D4281-3	SPACER
5	2	D4419-1	FWD SUPPORT PLATE
6	2	AN4C13A	BOLT
7	1	MS20427M4-20	CSK RIVET (MONEL)
8	10	MS20615-4M18	RIVET (MONEL)
9	2	MS21043-4	NUT
10	4	NAS1149C0432R	WASHER



D4271-025 FWD BEAM END FITTING ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART IDENTIFY WITH DART P/N "D4271-025" AND B/N "BXXXXX" PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT: 2.69 lbs



RELEASED
R 2011-07-28

DESIGN	JPH	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D4271	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		SUPPORT BEAM ASSEMBLIES	
DATE	11.07.14	NTS	

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NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

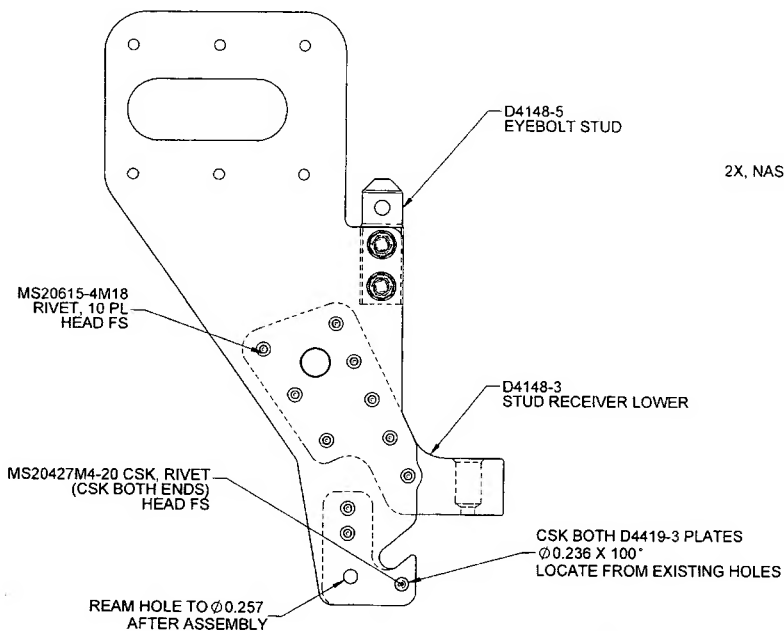
DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

87362

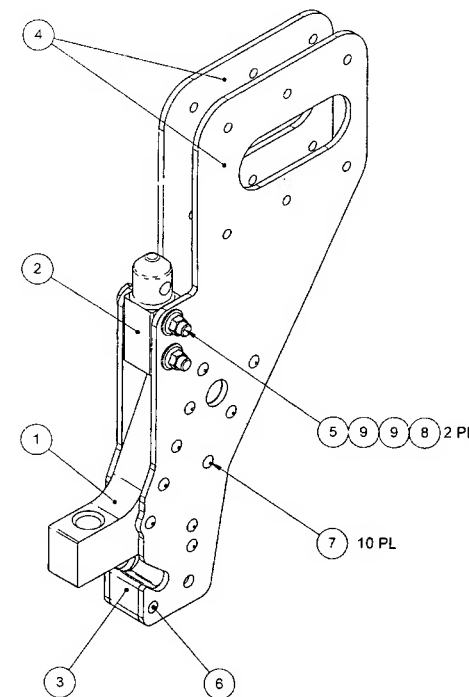
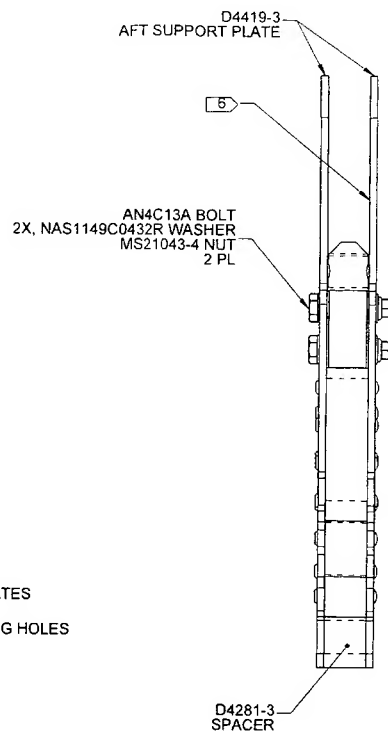
ITEM	QTY	P/N	DESCRIPTION
	-027		
	X	D4271-027	AFT BEAM END FITTING ASSEMBLY
1	1	D4148-3	STUD RECEIVER LOWER
2	1	D4148-5	EYEBOLT STUD
3	1	D4281-3	SPACER
4	2	D4419-3	AFT SUPPORT PLATE
5	2	AN4C13A	BOLT
6	1	MS20427M4-20	CSK RIVET (MONEL)
7	10	MS20615-4M18	RIVET (MONEL)
8	2	MS21043-4	NUT
9	4	NAS1149C0432R	WASHER



D4271-027 AFT BEAM END FITTING ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART IDENTIFY WITH DART P/N "D4271-027" AND B/N "BXXXXX" PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT: 4.25 lbs



RELEASED
2011-07-28

DESIGN	JPH	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	GP	DRAWING NO.	REV. D
MFG. APPR.	E	D4271	SHEET 3 OF 3
APPROVED	MP	TITLE	SCALE
DE APPR.	HA	SUPPORT BEAM ASSEMBLIES NTS	
DATE	11.07.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other